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A New Species of *Rivellia* (Diptera, Platystomatidae) from Japan, with Notes on Three Known Species of the Genus in the Far East

By

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原 秀穂*: ヒメヒロクチバエ属 (新称) の日本産 1 新種と
極東アジア産 3 既知種について

Platystomatid flies of the genus *Rivellia* feed on the root-nodules of legumes in the larval stage (FOOTE, 1985). Some species are known as the pests which cause severe damage on their host plants (SEEGER & MALDAGUE, 1960; DIATOLFF, 1965; EASTMANN & WUENSCH, 1977). However, their biology and taxonomy are insufficiently studied in Japan.

In my study on *Rivellia* in Japan, including the investigation in Hokkaido in 1993 under the "Natural History Research Project of the Japanese Islands" made by the National Science Museum, Tokyo, I recognized the occurrence of a new species of *Rivellia* similar to *R. asiatica* HENNIG described from northeastern China and *R. nigricans* (MATSUMURA) from Japan, and of an unrecorded species, *R. mandschurica* HENNIG, described from northeastern China. In this paper, I am going to describe the new species and to provide additional information on the systematics, distribution, and so on of the three known species. I will also provide a key to these four species and their allies in East Asia.

For the terminology, see MCALPINE (1981) and HARA (1989, 1992). Depositories of the materials examined in this paper are abbreviated as follows: HH—author's collection; HU—Laboratory of Systematic Entomology, Faculty of Agriculture, Hokkaido University, Sapporo; KPU—Laboratory of Entomology, Faculty of Agriculture, Kyoto Prefectural University, Kyoto; KU—Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka; MU—Entomological Laboratory, Faculty of Agriculture, Meijo University, Nagoya; NSMT—National Science Museum (Natural History), Tokyo; TI—T. ICHITA collection, Aomori; UOP—Entomological Laboratory, College of Agriculture, University of Osaka Prefecture, Sakai; USNM—United States National Museum, Washington, D.C.

The Group of *Rivellia syngensiae* (FABRICIUS)

The type species of *Rivellia*, *R. syngensiae* (FABRICIUS) in Europe and seven East Asian species, *R. alini* ENDERLEIN, *R. asiatica* HENNIG, *R. charbinensis* ENDERLEIN, *R. flavipes* n. sp., *R.*

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mandschurica HENNIG, *R. nigricans* (MATSUMURA), and *R. sphenisca* HENDEL, are grouped in having the following unique character: in aedeagal apodeme of male terminalia, base of apodemal lobe distant posteriorly from base of lateral arm (see also HARA, 1989). This character is considered as apomorphic with respect to the genus, because in the other members of the genus as well as the other genera of the family which I have seen the apodemal lobe arises from the base of lateral arm. A Far East Asian species, *R. parilis* FREY, is very similar to *R. charbinensis* and may also be grouped with these species, although I have not examined its male specimens.

The above nine species are also characterized by the combination of the following features: Crossveins r-m and dm-cu covered with markings respectively; cell c darkened entirely or except for its apex; parafacial wider than diameter of marginal facet of eye, but less than three times as wide as the diameter; inner vertical bristle about as long as or slightly longer than outer one; posterior front-orbital bristle about 2/3 as long as anterior one; distinct bristle present on lateral part of postgena; postpronotal and posterior dorsocentral bristles strong respectively.

Key to East Asian Species Closely Allied to *Rivellia syngensiae*

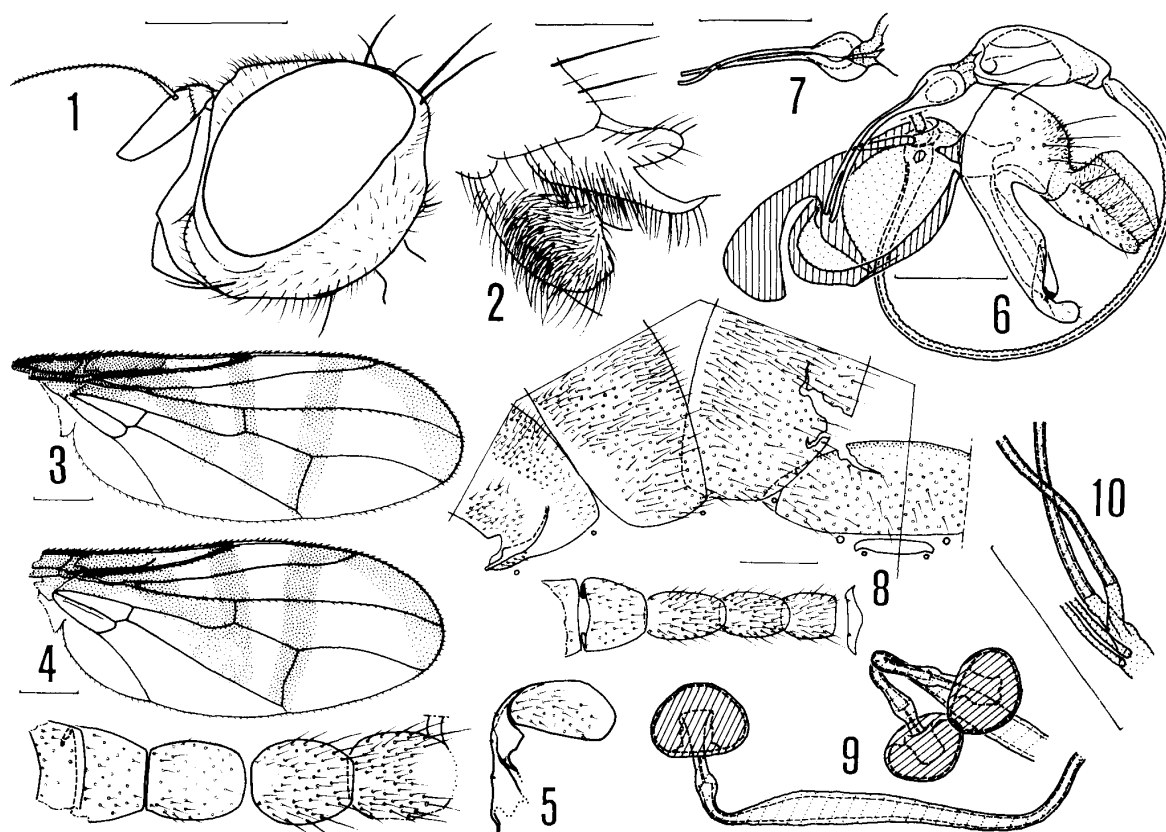
- 1 Wing very narrow, more than three times as long as wide; vein $A_1 + CuA_2$ much shorter than cell cup 2
- Wing broad (Fig. 3), about 2.5 times as long as wide; vein $A_1 + CuA_2$ about as long as or longer than cell cup 3
- 2 All femora tawny; transverse band over crossvein r-m extending to vein M posteriorly *R. parilis* FREY
- At least middle and hind femora dark brown; transverse band over crossvein r-m extending beyond vein M posteriorly *R. charbinensis* ENDERLEIN
- 3 Cell bm blackish brown *R. alini* ENDERLEIN
- Cell bm hyaline 4
- 4 Cell sc completely darkened at the part between apices of veins Sc and R_1 (Fig. 22) *R. mandschurica* HENNIG
- Cell sc predominantly or mostly hyaline or tawny at the part between apices of veins Sc and R_1 , darkened apically (Fig. 3) 5
- 5 Wing with basal marking fused with transverse band over crossvein r-m posteriorly as in Fig. 4; cell br darkened above junction of vein M and crossvein bm-cu as in Fig. 22 *R. sphenisca* HENDEL
- Wing with basal marking usually separated from transverse band over crossvein r-m (Fig. 3); cell br hyaline above junction of vein M and crossvein bm-cu (Figs. 3-4, 11) 6
- 6 Hind trochanter of male ventrally rounded in lateral view and with laterocline or erect hairs (Fig. 15); female with first + second abdominal syntergite covered with moderate hairs all over in posterior half (Fig. 20) *R. asiatica* HENNIG
- Hind trochanter of male ventrally flattened and with dense anterocline hairs (Fig. 2); female with first + second abdominal syntergite apparently bare posterolaterally (Fig. 8) 7
- 7 Femora tawny; cell br pale tawny basally (Fig. 11); abdominal tergites not pruinose *R. flavipes* n. sp.
- Femora mostly dark brown; cell br dark to blackish brown basally (Fig. 3); abdominal tergites covered with whitish pruinoscence *R. nigricans* (MATSUMURA)

***Rivellia nigricans* (MATSUMURA)**

(Figs. 1–10)

Spirographa nigricans MATSUMURA, 1916, p. 421; 1931, p. 368.*Rivellia nigricans*: Japan Plant Protection Association, 1965, p. 205, 318.*Euribia hashibae* SHINJI, 1939, p. 321. N. syn.*Rivellia basilaris*: ITO, 1947, p. 59 (nec WIEDEMANN, 1830).*Rivellia basilaris*: STEYSKAL, 1977, p. 152 (nec WIEDEMANN, 1830) (part.).

Redescription (male and female). Body blackish brown, with weak metallic colored reflections, greenish on thorax, bluish on abdomen; gena and parafacial brown; frons dark brown. Clypeus not pruinescent, but shining. Legs mostly dark brown, brownish at apices of femora and at apices and bases of tibiae; tarsi tawny, darkened apically. Wing with blackish brown markings (Fig. 3); cells bc and c entirely covered with marking; sc predominantly hyaline or tawny at the part between apices of Sc and R₁, darkened apically; br with triangular hyaline spot above junction of M and bm-cu; transverse band from apical part of c extending posteriorly to dm or CuA₁; this band separated from transverse band over r-m, but in only one male fused with the latter band posteriorly (Fig. 4);



Figs. 1–10. *Rivellia nigricans* (MATSUMURA) (1–3 and 5–7, male syntype; 4, male; 8–10, female).—1, Head in profile; 2, hind trochanters from left; 3, right wing; 4, right wing (aberrant form); 5, first to eighth abdominal sternites; 6, terminalia from left; 7, apical part of glans in anterior view; 8, first to sixth abdominal segments (straight line indicates dorsal median line; dots on fifth tergite indicate sensory pits); 9, apical parts of spermathecae and spermathecal ducts; 10, basal parts of spermathecal ducts. Scales refer to 0.5 mm in Figs. 1, 3–5, and 8, and 0.2 mm in Figs. 2, 6–7, and 9–10.

transverse band over dm-cu fused with apical band anteriorly along C, sometimes narrowly separated from the latter. Calypteres yellowish white. Halter brown to dark brown, paler basally. Abdomen mostly covered with dense whitish pruinescence. Bristles and hairs dark to blackish brown; fine hairs yellowish.

Head as in Fig. 1. Gena 0.14–0.17 times as high as head capsule. Parafacial about twice as wide as diameter of marginal facet of eye. Inner vertical bristle about as long as or slightly longer than outer one. Posterior front-orbital bristle about 2/3 as long as anterior one. One outstanding bristle occurring on lateral part of postgena. First flagellomere in lateral view with apex pointed and dorsal margin almost straight or slightly concave. Medial height of clypeus about 1/3 times as long as that of face. Scutum usually without additional bristles, sometimes with pair of weak bristles which are located anterolaterally to posterior dorsocentral bristles. Distance between apical scutellar bristles about 1.3 times as long as that between basal and apical scutellar bristles. Hind trochanter in male flattened ventrally and densely with short anteroclinate hairs ventrally (Fig. 2), in female rounded ventrally and with usual hairs as in Fig. 15. Wing (Fig. 3): Distance between apices of R_1 and R_{2+3} about as long as or somewhat longer than that between apices of R_{2+3} and R_{4+5} ; distance between junctions of M with r-m and dm-cu 0.57–0.72 times as long as that between junctions of M with bm-cu and r-m.

Male abdomen: First to fifth tergites rugulose; ratio of lengths of third to fifth tergites 0.92–0.94: 1.0: 1.0–1.2; third and fourth sternites each longer than wide (Fig. 5); fifth sternite posteriorly with a pair of narrow lateral lobes which extend to posterolateral corners of fifth tergite; sixth sternite broad; outer surstylus with long apical projection which is somewhat widened apically, and with a group of minute teeth on inner side at level of prenisetae (Fig. 6); inner surstylus with membranous cleft, fused with tenth sternite and hypoproct basally; hypandrium on right side with narrow longitudinal sclerite which is anteriorly articulated with right lateral arm of aedeagal apodeme and is posteriorly fused with hypandrial ring; aedeagal apodeme with lateral arms only fused basally with each other, with base of apodemal lobe distant posteriorly from base of lateral arm; glans separated into basal and apical parts by membranous neck, with apical part rounded laterally, with acrophallus longer than basal part of glans (Figs. 6–7); hypoproct fused with each other anteriorly. Female abdomen: As in male apart from usual sexual differences, but posterolateral part of first+second syntergite without distinct hairs, but with sparse microscopic hairs (Fig. 8); ratio of lengths of third to fifth tergites, 0.84–0.89: 1.0: 0.63–0.73; third and fourth sternites longer than wide respectively; fifth sternite slightly longer or about as long as wide; distance between fifth spiracles longer than that between sixth ones; spermatheca hemispherical (Fig. 9); spermathecal ducts subequal in length, slightly thickened basally (Fig. 10).

Bristles and hairs as in usual condition, except for the points stated above.

Body length, 4.1–4.5 mm; wing length, 3.6–4.2 mm.

Type material examined. Syntypes of *Spirographa nigricans* MATSUMURA: 1♂, “Sapporo, 1903” (HU); 1♀, “下/VII 1905, Towada” (HU); 1♀, “Japan, Kuwayama” (HU). Syntype of *Euribia hashibae* SHINJI: 1♀, “[Honshu], Hasiba, Morioka, (Rikutyu), 12. vii. 1937, O. Shinji”, “Typus!, *Euribia hashibae*, Shinji, 1939” (KU). The syntype of *E. hashibae* is a discolored specimen having brownish orange body, tawny legs, and pale tawny wing markings. It is, however, safely identified with *R. nigricans*, although ITO (1947) and STEYSKAL (1977) synonymized this species with *R. basilaris* (WIEDEMANN) having predominantly orange body and legs.

Other material examined. Japan: Hokkaido—2♂, Rishiri Is., 6–9. VIII. 1958 (KPU); 1♂1♀, Nemuro, Rausu, 20. VII. 1961, Z. YUKAWA (UOP); 5♂3♀, Kushiro, Kussharo, 19. VII. 1953, S. ITO (UOP); 1♂11♀, Kushiro, Shibeche, 11. VII. 1982, H. NISHIDA (HH); 2♂, Tokachi, Ashoro, 21–22. VII. 1955, K. YASUMATSU (KU); 3♀, Tokachi, Kamishihoro, 25. VII. 1959, K. YANO (UOP); 8♂17♀, Tokachi, Obihiro, 7. VII. 1982, H. NISHIDA (HH, NSMT); 2♂6♀, Kamikawa, Kamiotoineppu, 25–28. VII. 1958, M. SASAKAWA (KPU); 1♂, Kamikawa, Sôunkyô, 20. VII. 1941, H. UCHIDA (NSMT); 1♂1♀, Kamikawa, Asahikawa, 15. VII. 1983, Y. HIGASHIURA, on *Maackia amurensis* var. *buergeri* (HH); 2♀, Sorachi, Shintotsugawa, 21. VII. 1959, K. YANO (UOP); 1♀, Sorachi, Bibai, 16. VII. 1982, H. NISHIDA (HH); 1♂, Sorachi, Kuriyama, 19. VII. 1987, H. HARA, on *Pueraria lobata* (HH); 3♂2♀, Ishikari, Jozankei, 8. VII. 1953, S. ITO (UOP); 1♀, Ishikari, Sapporo, 18. VII. 1959, K. YANO (UOP); 2♂1♀, Ishikari, Nopporo, 19. VII. 1987, H. HARA (HH); 4♂4♀, Iburi, Oiwake, 19. VII. 1983, H. HARA, on *Amphicarpaea bracteata edgeworthii* var. *japonica* (HH); 2♂, Iburi, Azuma, 24. VII. 1987, H. HARA, on *Glycine max* (HH); 5♂5♀, Oshima, Oonuma, 21. VII. 1968, S. MORIUTI (UOP). Honshu—1♀, Aomori Pref., Mutsu, 10. VII. 1988, T. ICHITA (TI); 2♀, Aomori Pref., Ajigasawa, 15. VII. 1989, T. ICHITA (TI); 1♂, Aomori Pref., Rokkasho, 13. VIII. 1989, T. ICHITA (TI); 2♀, Aomori Pref., Iwasaki, 26. VIII. 1989, T. ICHITA (TI); 2♀, Aomori Pref., Fukaura, 24. VII. 1990, T. ICHITA (TI); 1♀, Aomori Pref., Higashidohri, 13. VIII. 1993, T. ICHITA (TI); 2♂1♀, Aomori Pref., Aomori, 3. VII. 1993, T. ICHITA (TI); 1♂2♀, Iwate Pref., Mt. Hayachine, 11–12. VII. 1980, M. SUWA (HU); 1♂1♀, Fukushima Pref., Tateiwa, 6–8. VIII. 1983, Y. KUROSAWA & S. OKAJIMA (NSMT); 3♀, Ishikawa Pref., Mt. Haku, 28. VII. 1961, T. YASUDA (UOP); 1♂1♀, Niigata Pref., Ojiya, 19. VIII. 1970, K. YAMAGISHI (MU); 2♀, Niigata Pref., Yamakoshi, 27. VII. 1971, K. YAMAGISHI (MU); 8♂5♀, Niigata Pref., Mt. Makihatayama, 27. VII. 1971, K. YAMAGISHI (MU); 1♀, Niigata Pref., Yunotani, 5. VIII. 1971, K. YAMAGISHI (MU); 1♀, Nagano Pref., Kuramoto, 13. VII. 1971, N. UEDA (KPU); 10♂8♀, Nagano Pref., Hakuba, 7–8. VII. 1982, H. HARA, on *Pueraria lobata* (HH); 1♂1♀, Nagano Pref., Sugadaira, 19. VIII. 1982, H. NISHIDA (HH); 3♂1♀, Nagano Pref., Ueda, 7. VII. 1982, H. HARA, on *Pueraria lobata* (HH); 4♂6♀, Nagano Pref., Sakae, 9. VIII. 1981, H. HARA, on *Pueraria lobata* (HH); 25♂34♀, Nagano Pref., Outaki, 26–29. VII. 1981, H. HARA, on *Pueraria lobata* (HH); 14♂9♀, Nagano Pref., Kaida, 11. VIII. 1982, H. HARA, on *Pueraria lobata* (HH); 3♂, Nagano Pref., Kisofukushima, 11. VII. 1982, H. HARA, on *Pueraria lobata* (HH); 3♀, Gifu Pref., Mt. Haku, 18. VII. 1960, T. OKADOME (UOP); 2♀, Shiga Pref., Kozuraki, 24. VII. 1955 (KPU); 2♂3♀, Kyoto Pref., Hanase, 25. VII. 1951, T. KODAMA (UOP); 2♂, Nara Pref., Yoshino, 30. VIII. 1928, T. ESAKI (KU); 1♂, Nara Pref., Dorogawa, 22. VII. 1955, S. ITO (UOP); 1♀, Osaka Pref., Mt. Iwawaki, 3. VII. 1950, S. ITO (UOP); 1♂4♀, Tottori Pref., Mt. Daisen, 12. VII. 1950, S. ITO (UOP). Kyushu—2♂, Fukuoka Pref., Mt. Hiko, 2. VIII. 1930, K. YASUMATSU (KU).

Distribution. Japan (Hokkaido, Honshu, and Kyushu [new record]).

Biology. Adults are abundantly found on kudzu vine, *Pueraria lobata* (WILLD.) OHWI in Hokkaido and Honshu and are also collected on *Amphicarpaea bracteata* (L.) FENN. subsp. *edgeworthii* (BENTH.) OHASHI var. *japonica* (OLIVER) OHASHI, *Glycine max* (LINN.) MERR., and *Maackia amurensis* RUPR. et MAXIM. var. *buergeri* (MAXIM.) C. K. SCHN. in Hokkaido.

Remarks. This species is similar to *R. asiatica* HENNIG and *R. flavipes* n. sp. in coloration, but is distinguished from the latter two by the characters given in the key and the long acrophallus in the male terminalia (Figs. 6–7). For further comparison, see under the latter species.

Rivellia flavipes n. sp.

(Figs. 11–14)

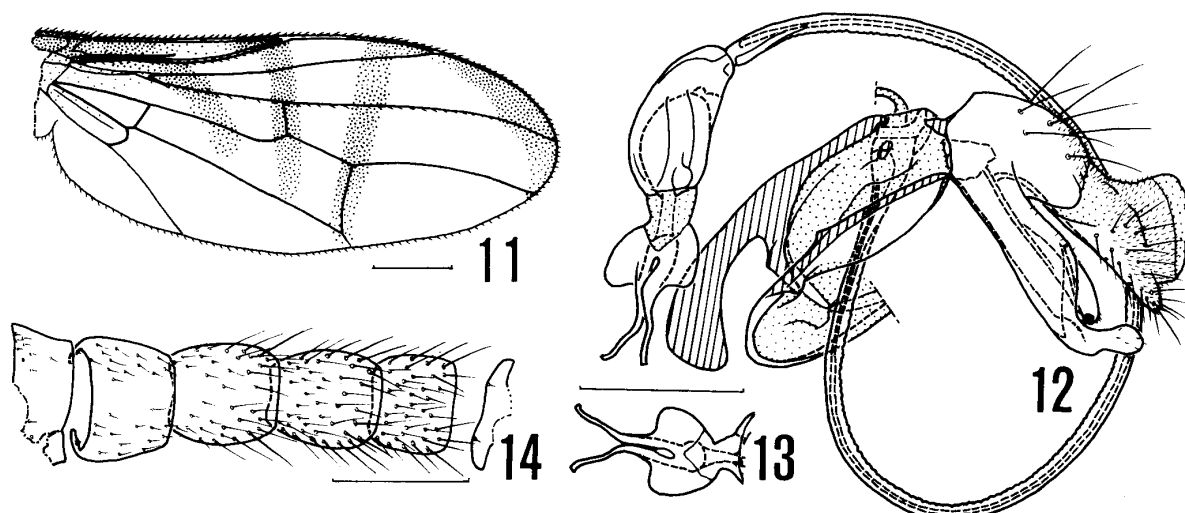
Description (male and female). Similar to *R. nigricans* (MATSUMURA) in coloration and structure, but differing from it as follows:

Legs mostly tawny, darkened on hind tibia, bases of mid and hind coxae, and apices of tarsi; hairs on venter of hind trochanter yellowish (those of *R. nigricans* blackish). Wing marking as in Fig. 11; basal part of cell br pale tawny. Abdomen not pruinulent.

Distance between apical scutellar bristles as long as or slightly longer than that between basal and apical scutellar bristles. In male abdomen, glans with apical part angularly projecting laterally, with short and narrow acrophalli (Figs. 12–13). Female abdomen: Third and fourth sternites about as long as wide respectively (Fig. 14); fifth sternite wider than long.

Measurements: Body length, 3.0–3.8 mm. Wing length, 3.2–4.0 mm. Gena/head capsule in height, 0.15–0.18. Distance between junctions of M with r-m and dm-cu 0.50–0.57 times as long as that between junctions of M with bm-cu and r-m. Ratio of lengths of third to fifth abdominal tergites, 0.81–0.90: 1.0: 1.0–1.1 in male, 0.73–0.75: 1.0: 0.75–0.78 in female.

Material examined. Holotype: ♂, labelled “Shintoku, Tokachi, Hokkaido, 19. VI. 1993, H. HARA” and “on *Lespedeza bicolor*” (NSMT). Paratypes: Japan, Hokkaido—4♂2♀, same data as holotype (NSMT, USNM); 1♂, same data as holotype, but 2. VII. 1993 (NSMT); 1♀, Kushiro, Akan, 17. VI. 1951, M. SASAKAWA (KU); 46♂24♀, Kushiro, Shibecha, 9. VII. 1982, H. NISHIDA (HH, USNM); 1♀, Tokachi, Nukabira, 4. VII. 1982, H. NISHIDA (HH, USNM); 2♂3♀, Iburi, Bibi, 2–3. VII. 1982, H. NISHIDA (HH). Honshu—1♀, Aomori Pref., Namioka, 18. VI. 1989, T. ICHITA (TI); 4♀, Aomori Pref., Hashikami, 4. VII. 1993, T. ICHITA (TI); 1♂, Akita Pref., Tamagawa, 16. VI. 1951, S. ITO (UOP); 4♂, Nagano Pref., Sugadaira, 16. VII. 1982, H. HARA (HH); 14♂10♀, Nagano Pref., Sanada, 15. VII. 1982, H. HARA (HH); 1♂, Nagano Pref., Utsukushigahara, 17. VII. 1960, K. YANO (UOP); 1♂, Tottori Pref., Mt. Daisen, 10. VII. 1950, S. ITO (UOP). Kyushu—1♀, Fukuoka Pref., Mt. Hiko, 25. VII. 1979, K. MAETO (KU).



Figs. 11–14. *Rivellia flavipes* n. sp. (11–13, holotype, male; 14, female).—11, Right wing; 12, terminalia from left; 13, apical part of glans in anterior view; 14, first to sixth abdominal sternites. Scales refer to 0.5 mm in Figs. 11 and 14, and 0.2 mm in Figs. 12–13.

Distribution. Japan (Hokkaido, Honshu, Kyushu).

Biology. Adults were found on bush clover, *Lespedeza bicolor* TURCZ. in Hokkaido.

Remarks. This species is similar to *R. nigricans* (MATSUMURA) and *R. asiatica* HENNIG in coloration, but is distinguished from *R. nigricans* as stated above and from *R. asiatica* by the following characters: Legs mostly tawny; cell br pale tawny basally; in male, hind trochanter ventrally flattened and densely with short anterocline yellowish hairs; in female abdomen, first + second syntergite apparently bare posterolaterally; in male terminalia, apical part of glans angularly projecting laterally.

***Rivellia asiatica* HENNIG**

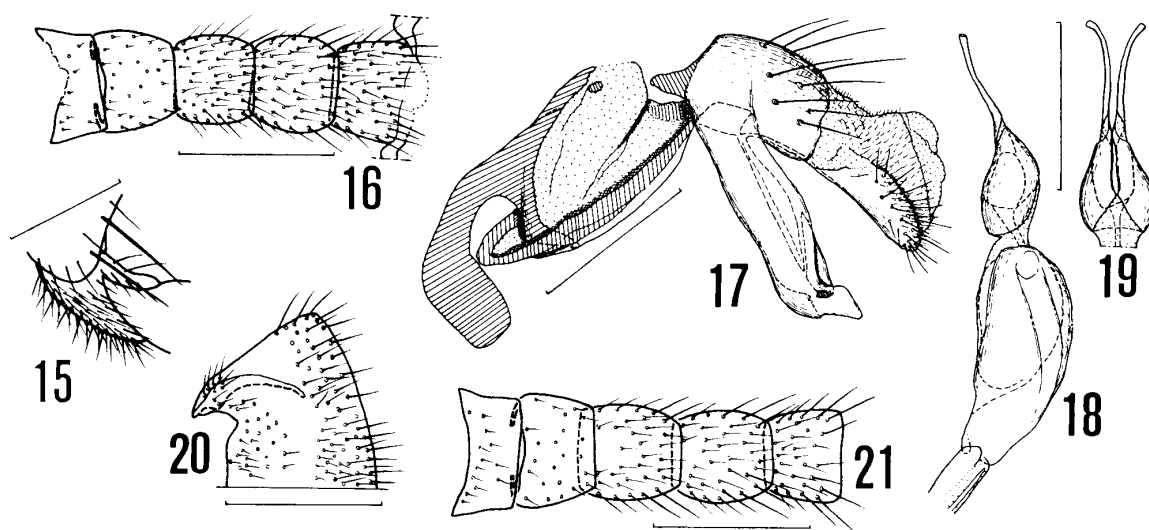
(Figs. 15–21)

Rivellia asiatica HENNIG, 1945, p. 8.

Supplementary description. The coloration was detailed by HENNIG (1945), and is very similar to that of *R. nigricans* (MATSUMURA), but differs from the latter in having the abdomen not pruinose.

The structure is also similar to that of *R. nigricans*, but differs from it as follows: Parafrons about 1.5 times as wide as diameter of marginal facet of eye; hind trochanter rounded ventrally, with erect or laterocline short hairs in both sexes (Fig. 15); in male abdomen, third and fourth sternites each wider than long (Fig. 16), outer surstylus with broad apical projection (Fig. 17), and apical part of glans conical with short and narrow acrophalli (Figs. 18–19); in female abdomen, posterior half of first + second syntergite covered with distinct hairs all over as in male (Fig. 20), fifth sternite wider than long (Fig. 21), and spermathecal duct thicker.

Measurements: Body length, 2.7–3.0 mm. Wing length, 2.8–3.1 mm. Gena/head capsule in height, 0.15–0.18. Distance between junctions of M with r-m and dm-cu 0.58–0.70 times as long as that between junctions of M with bm-cu and r-m. Ratio of lengths of third to fifth abdominal



Figs. 15–21. *Rivellia asiatica* HENNIG (15–19, male; 20–21, female).—15, Left hind trochanter from left; 16, first to fifth abdominal sternites; 17, terminalia from left; 18, glans in lateral view; 19, apical part of glans in anterior view; 20, first + second abdominal syntergite; 21, first to fifth abdominal sternites. Scales refer to 0.5 mm in Figs. 16 and 20–21, and 0.2 mm in Figs. 15 and 17–19.

tergites, 0.91–0.96: 1.0: 1.1–1.2 in male, 0.82–0.83: 1.0: 0.68–0.70 in female.

Material examined. Siberia: 1 ♀, “Olga, Siberia, July 1923, Cockerell” (USNM); 1 ♀, “Okeanskaya, Siberia, Cockerell, August, 1923” (USNM). Korea: 4♂2 ♀, Mt. Sudosan, 9–12. VII. 1971, K. YAMAGISHI (MU).

Distribution. Northeastern China; Siberia [new record]; Korea [new record]. FREY (1964) recorded this species from Japan (“Odaira”). However, I was unable to examine any Japanese specimens of this species.

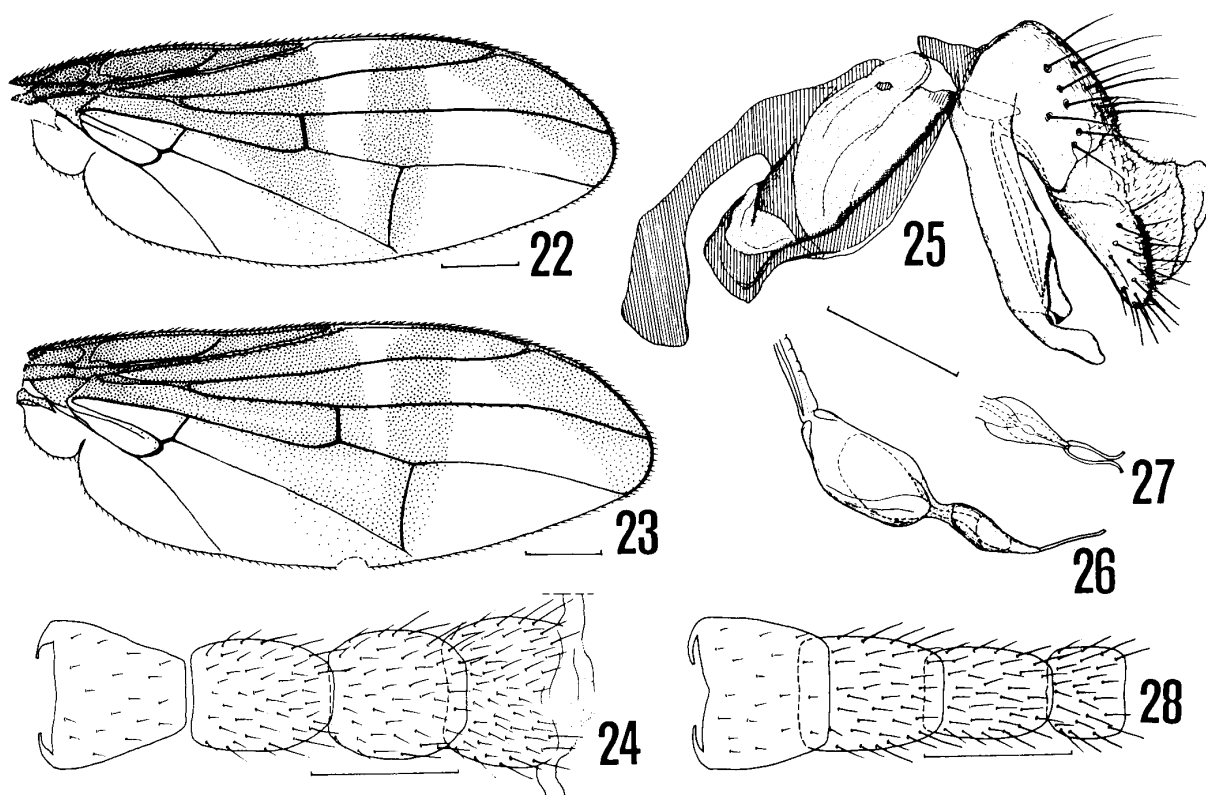
Remarks. This species is similar in coloration to *R. nigricans* (MATSUMURA) and *R. flavipes* n. sp., but is distinguished from *R. nigricans* as stated above, and from *R. flavipes* n. sp. by the following characters: Legs predominantly dark brown; cell br darkened basally as in Fig. 3; in male, hind trochanter rounded ventrally, with usual hairs (Fig. 15), and apical part of glans conical with short acrophalli; in female abdomen, posterior half of first + second syntergite covered with moderate hairs all over.

***Rivellia mandschurica* HENNIG**

(Figs. 22–28)

Rivellia mandschurica HENNIG, 1945, p. 10.

Supplementary description. The coloration was detailed by HENNIG (1945), and is similar to that of *R. nigricans* (MATSUMURA), but *R. mandschurica* has the non-pruinulent abdomen and the quite



Figs. 22–28. *Rivellia mandschurica* HENNIG (22–23 and 28, female; 24–27, male).—22, Right wing; 23, right wing (aberrant form); 24, second to fifth abdominal sternites; 25, terminalia from left; 26, glans in lateral view; 27, apical part of glans in anterior view; 28, second to fifth abdominal sternites. Scales refer to 0.5 mm in Figs. 22–24 and 28, and 0.2 mm in Figs. 25–27.

different wing marking (Fig. 22). In the wing, the basal triangular marking is usually separated from the apical inverted V-shaped marking (Fig. 22), as noted in the original description, but these markings are rarely fused with each other posteriorly (Fig. 23).

The structure is similar to that of *R. nigricans*, but differs from the latter as follows: Distance between apical scutellar bristles as long as or slightly longer than that between basal and apical scutellar bristles; in male abdomen, apical part of glans conical with short and narrow acrophalli (Figs. 25–27); in female abdomen, fifth tergite very short, less than half as long as fourth one, and fifth sternite wider than long (Fig. 28).

Measurements: Body length, 3.6–4.8 mm. Wing length, 3.5–4.9 mm. Gena/head capsule in height, 0.13–0.19. Distance between junctions of M with r-m and dm-cu 0.64–0.82 times as long as that between junctions of M with bm-cu and r-m. Ratio of lengths of third to fifth abdominal tergites, 0.89–0.93: 1.0: 0.98–1.0 in male, 0.70–0.74: 1.0: 0.38–0.46 in female.

Material examined. Siberia: 1 ♀, “Ussuri, Siberia” (USNM); 1 ♀, “Okeanskaya, Siberia, VII–1923, Cockerell” (USNM). Korea: 2 ♀, Mt Sudosan, 13–14. VII. 1971, K. YAMAGISHI (MU). Japan: Hokkaido—1 ♀, Kushiro, Nibushi, 19. VII. 1953, S. ITO (UOP); 1 ♂, Kushiro, Shibeche, 9. VII. 1982, H. NISHIDA (UOP); 8 ♂ 5 ♀, Tokachi, Shintoku, 29. VI–17. VII, 1993, H. HARA, on *Maackia amurensis* var. *buergeri* (NSMT); 6 ♂ 8 ♀, Kamikawa, Biei, 28. VII, 1983, H. HARA (HH); 1 ♂ 1 ♀, Sorachi, Kuriyama, 19. VII, 1983, H. HARA, on *Pueraria lobata* (HH); 1 ♀, Ishikari, Toyohira, 11. VI (HU); Ishikari, Sapporo, 11. VII. 1961, Z. YUKAWA (UOP); 1 ♀, Ishikari, Sapporo, 13. VII. 1961, Z. INOUE (UOP); 1 ♀, Ishikari, Nopporo, 19. VII, 1987, H. HARA (HH); 9 ♂ 4 ♀, Iburi, Oiwake, 19. VII. 1983, H. HARA, on *Amphicarpaea bracteata edgeworthii* var. *japonica* (HH); 2 ♂ 1 ♀, Iburi, Mukawa, 1. VIII, 1983, H. HARA (HH); 1 ♀, Oshima, Oonuma, 21. VII. 1963, S. MORIUTI (UOP). Honshu—1 ♂, Akita Pref., Tamagawa, 18. VI. 1951, S. ITO (UOP); 1 ♀, Nagano Pref., Abtôtôge, 15. VIII. 1951, S. ITO (UOP); 2 ♂, Nagano Pref., Utsukushigahara, 16. VII. 1960, K. YANO (UOP); 1 ♂ 1 ♀, Nagano Pref., Sakae, 9. VIII. 1981, H. HARA (HH); 1 ♀, Nagano Pref., Hakuba, 8. VII. 1982, H. HARA (HH).

Distribution. Northeastern China; Siberia [new record]; Korea [new record]; Japan [new record] (Hokkaido and Honshu).

Biology. I collected some adults on the following legumes in Hokkaido: *Amphicarpaea bracteata* (L.) FERN. *edgeworthii* (BENTH.) OHASHI var. *japonica* (OLIVER) OHASHI, *Maackia amurensis* RUPR. et MAXIM. var. *buergeri* C. K. SCHN., and *Pueraria lobata* (WILLD.) OHWI.

Remarks. This species was described as being similar to *R. alini* ENDERLEIN occurring in Northeastern Asia, but is easily distinguished from that species as well as from the other species of the genus by the unique wing marking (Figs. 22–23).

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要 約

ヨーロッパ産のヒロクチバエ科ヒメヒロクチバエ属（新称, *Rivellia*）の1種 *Rivellia syngensiae* (FABRICIUS) とそれに近縁な東アジア産8種からなる種群を設立し, 東アジア産の種については検索表を与えた. このうち1種は日本産の新種でキアシヒメヒロクチバエ (*R. flavipes* n. sp.) として記載した. この新種は日本から記載されたミスジヒメヒロクチバエ [改称, =クロハミスジバエ, *R. nigricans* (MATSUMURA)], や中国東北部から記載された *R. asiatica* HENNIG に類似するが, 脚が黄色であること, 翅のbr室が基部で淡黄色であること, および雄交尾器の *glans* 先端部が側方に張り出すことなどにより区別できる. 後の2既知種についても再記載もしくは補足的な記載を与えるとともに, *Euribia hashibae* SHINJI を *R. nigricans* の異名とし, *R. asiatica* を朝鮮半島およびシベリアから初めて記録した. また, 中国東北部から記載されたネグロヒメヒロクチバエ（新称, *R. mandshurica* HENNIG）を日本から初めて記録し, その補足的な記載を与えた. この種が朝鮮半島とシベリアに分布することも初めて確認された. 日本産3種の成虫は特定のマメ科植物上で頻繁に採集された.

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